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ABSTRACT

This research brief reports on selected findings from a longitudinal study conducted at the Institute on Community Integration, University of Minnesota. The study identified the postschool status of young adults and adults with moderate and severe disabilities, and changes in that status over time. Specifically, this study examined the postschool status of: (1) young adults with moderate and severe disabilities who exited school between 1975 and 1985 (n=123); (2) the same individuals as adults who had been out of school for a minimum of 10 years; and (3) young adults with moderate and severe disabilities who left school between 1990 and 1994 (n=145). Overall findings indicate that the individuals with moderate and severe disabilities had limited access to postsecondary education, were dependent on others for residence, and still had limited community involvement. The study did, however, find increasing participation of individuals with moderate and severe disabilities in positive post school activities. The employment experiences of the individuals with moderate and severe disabilities have also improved. Not only were more found to be employed, more were employed in community settings and fewer young adults were in sheltered workshops. In addition, wages accounted for a larger portion of the individuals' incomes. (CR)

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Policy Research Brief

RESEARCH & TRAINING CENTER ON COMMUNITY LIVING
UNIVERSITY OF MINNESOTA

A Decade Later: Employment, Residential, and Social Changes in the Lives of Adults and Young Adults with Moderate and Severe Disabilities

This Policy Research Brief reports selected findings from a study conducted at the Institute on Community Integration, University of Minnesota. The study, funded by the U.S. Department of Education, National Institute on Disability and Rehabilitation Research, identified the postschool status of young adults and adults with moderate and severe disabilities, and changes in that status over time. Specifically, this study examined the postschool status of: a) young adults with moderate and severe disabilities who exited school between 1975 and 1985, b) the same individuals as adults who had been out of school a minimum of 10 years, and c) young adults with moderate and severe disabilities who left school between 1990 and 1994. The author of this issue is Barbara Guy, Director of the National Transition Network, Institute on Community Integration, University of Minnesota, Minneapolis (612/627-4135).

■ Introduction

In recent years, federal, state, and local policy initiatives on behalf of people with severe disabilities have focused on deinstitutionalization, normalization, and programs that more fully include people into the mainstream of our society. These contemporary trends toward the development of community employment and residential services, as well as judicial decisions mandating the creation of community services, clearly indicate that a majority of adults with moderate and severe disabilities will come to live, learn, and work in their communities across the United States.

The emerging emphasis on community inclusion and participation is supported through major legislative enactments. The Amendments to the Individuals with Disabilities Act of 1997 (IDEA), the Vocational Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1991 have mandated the rights of 36 million people in this country to receive the rehabilitation and special education services they need to achieve the goals of gainful employment and fuller community integration.

Unfortunately, despite changes in legislation, philosophy, and the provision of services, there are no data indicating that individuals with moderate and severe disabilities are leading more successful lives. This is particularly true in reference to changes in educational practice and the expansion of adult services in the 1980s. Relatively little is known about the post-high school work, residential, and social experiences of individuals with moderate and severe disabilities.

Historically, studies that have followed individuals with moderate and severe disabilities have focused on training programs that were special projects set up as models (e.g., Cho & Schuerman, 1980; Hill & Wehman, 1983; Walls, Tseng, & Zarin, 1976). One exception to this is a recent national study conducted by Johnson, McGrew, Bloomberg, Lin & Bruininks (1995). This study indicated that youth and adults with severe disabilities are less likely to be engaged in community activities after leaving high school than are those with more mild disabilities or with no disabilities. Individuals with the most severe disabilities worked less than those with more mild disabilities and received a lower income for their work. Of the small number of youth with

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the most severe disabilities who were working, 20% or fewer worked in community jobs. These youth were also less likely to work for pay while in school and had fewer friends and reported less control over individual expression and living arrangements than youth with more mild disabilities. While these data indicate that the majority of individuals with severe disabilities are not currently engaged in the types of work, residential, and social experiences of others with and without disabilities, they do not provide much insight on any changes that may have occurred in these experiences over the past 10 years.

Longitudinal data on the postschool status of individuals with disabilities are extremely rare. In a review of 27 studies of the postschool status of individuals with disabilities, Halpern (1990) found that only seven studies attempted a longitudinal design and none were considered exemplary. In fact, the variety of methods, variables, and targeted participants used in follow-up or follow-along studies have made the findings impossible to collapse across studies and have limited their interpretive use (Darrow & Clark, 1992; Halpern, 1990).

An understanding of the life circumstances of individuals with moderate and severe disabilities in adulthood – derived from careful longitudinal studies – is necessary to evaluate the evolution of education and adult services and to continue to develop policies, programs, and practices that are based on the long-term needs of individuals with moderate and severe disabilities. Evaluation of the effectiveness of changes in program philosophy and delivery would also be supported by a comparison of the postschool status of students who left school after receiving an educational program that represents the major changes in theory and practice (including transition planning) to the postschool status of students who left school prior to large scale educational and adult service changes. The longitudinal study summarized here has contributed to the base knowledge about such life status and changes for persons with moderate and severe disabilities over the past 10 years.

■ Purpose and Method

The study was conducted in an urban and a suburban school district in Minnesota. Minnesota's initiatives to promote deinstitutionalization, family support, transition planning, and alternative, community employment models made it a prime site to meet both the longitudinal and cross-sectional needs of the design. For example, significant movements toward inclusive educational settings and community-based instruction began around 1985. Since 1987, state legislation has mandated transition goals and objectives be included on student IEPs by ninth grade or age 14, and has required community-level interagency initiatives to support and improve transition services.

Participants

Figure 1 depicts the three samples that were used in this study and the relative time of data collection. The first sample, Young Adults '85, included 203 individuals with moderate and severe disabilities who had participated in a study conducted by Thurlow, Bruininks, and Lange (1989) or Thurlow, Bruininks, Wolman, and Steffans (1989). Participants were selected for the original studies on the basis of completion of special education services from an urban school district or a large suburban cooperative school district between 1975 and 1985. Their classification as having moderate and severe disabilities was identified during their last school assessment by the IEP team. They ranged in age from 19 to 33, with a mean of 24.85 years (see Table 1). Young Adults '85 had been out of school from 1 to 10 years. Slightly more than half were male (57%) and 43% were female. The majority of Young Adults '85 left school with a special education diploma (66%). Twenty-five percent of the Young Adults '85 participants left school because they reached maximum age for services. Only 6% of participants in the Young Adults '85 group left school with a general education diploma.

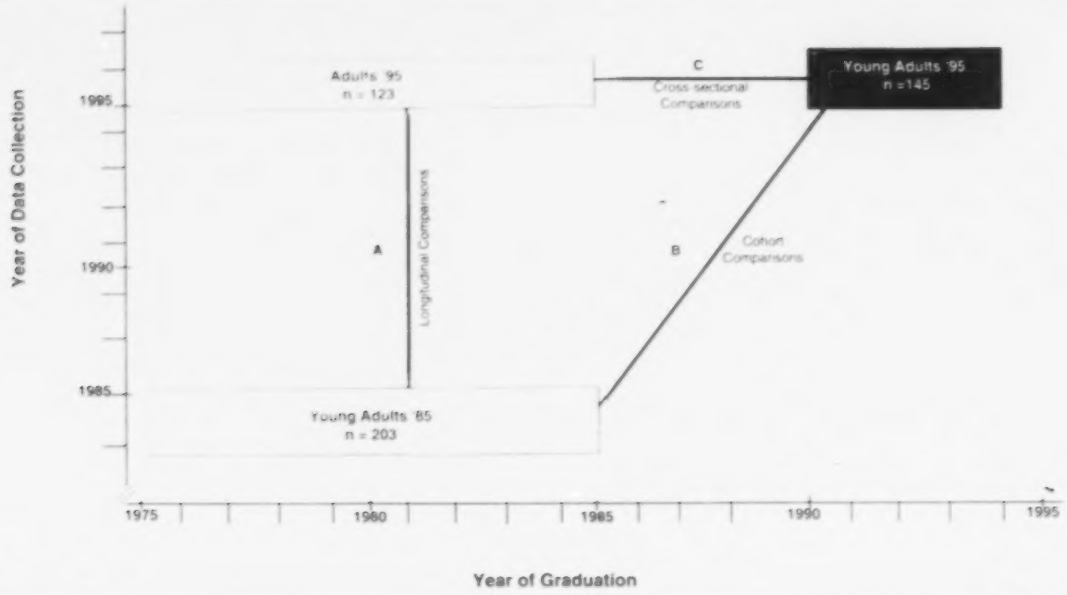
The 203 participants from the original studies were contacted to determine their interest in participating in the current study. A total of 159 former participants were located and the 123 who agreed to participate are repre-

Table 1: Demographic Characteristics of Participants

	Young Adults '85 (n=123)	Adults '95 (n=123)	Young Adults '95 (n=145)
Age			
Range	19 - 33	27 - 43	20 - 27
Mean	24.71	33.46	23.93
Gender			
Male	59%	59%	59%
Female	41%	41%	41%
Adaptive Behavior Skill Levels*			
Age-appropriate (68/90 and over)	18%	2%	14%
Limited (19/90 to 67/90)	20%	36%	55%
Very limited (0/90 to 18/90)	62%	63%	31%

*Levels based on the Relative Mastery Index of the *Scales of Independent Behavior – Revised 1996*. N for Young Adults '85 = 105 and for Young Adults '95 = 143 due to missing data.

Figure 1: Three Samples in Study



sented as the second sample, Adults '95, in Figure 1. Ages of these participants ranged from 27 to 43, with a mean of 33.46. There were slightly more male (59%) than female (41%) participants. As can be seen in Table 2, there was no significant difference in age, gender, or level of functioning between the original participants that were involved in the current study and those who were not.

The third sample, Young Adults '95, included young adults with moderate and severe disabilities who attended the same urban and suburban school districts as the participants in the original studies. Attempts were made to contact all youth with moderate and severe disabilities who completed school between 1990 and 1994 (n=257). Determination of disability label was based on the last school assessment by the IEP team. A total of 178 former students identified as having moderate or severe disabilities were located and 145 participated. Ages of the participants in the Young Adult '95 group ranged from 20 to 27, with a mean of 23.92. There were slightly more male (59%) than female (41%) participants. The majority left school with a special education diploma (55%). Twenty-nine percent of the participants left school because they reached maximum age for services, and 15% left school with a general eduction diploma. This was significantly more than those young adults that left school between 1975 and 1985.

Participants attended the interview and answered questions when possible. Respondents who had some familiarity with the participants provided answers when the participants were unable to answer all the questions. Table 3 identifies the types of respondents and the length of time that they knew the participants.

Instrumentation

The data from the current study that are presented in this brief were collected using two different instruments. One instrument was used to determine participation in postschool activities and the other was used to identify levels of adaptive behavior. Further description of these measures is provided below:

- **Postschool activities.** The measurement of postschool activities was grounded in the multidimensional modeling work completed at the University of Minnesota. The survey instrument used in the study was developed from a pool of data collection tools that had evolved over many years of research (Bruininks, Chen, Lakin, & McGrew, 1992; Bruininks, Lewis, & Thurlow, 1988; Bruininks, Thurlow, McGrew, & Lewis, 1990; Johnson & Sinclair, 1989; Johnson, Thompson, Sinclair, & Bruininks, 1992). Existing data collection tools were revised to provide maximum comparison with previous data sets and to measure new domains (e.g., health access and characteristics). The final survey instrument consisted of 91 questions across 10 outcome areas. These areas included: current employment status, career development, post-high school training and education, high school experience, independent living, community services, social involvement, financial independence, health care needs, and personal independence.
- **Measures of adaptive behavior.** The short form of the *Scales of Independent Behavior-Revised 1996* (SIB-R) was used to identify participants' levels of adaptive

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Table 2: Demographic Characteristics of Young Adults '85 Who Participated in Current Study in 1995 and Those Who Did Not

	Those who participated (%)	Those who did not (%)
Gender		
Male	59	54
Female	41	46
n	123	80
Level of Functioning*		
No retardation	0	3
Mild	34	46
Moderate	40	33
Severe	13	11
Profound	4	6
Unknown	10	1
n	119	70
Age		
Range	19 - 33	19 - 31
Mean	24.71	25.06
n	123	80

*Percentages reflect total group of 119 and 70 respectively due to missing data

Table 3: Type of Respondents and Length of Time That They Knew Participants

	Young Adults '85 (n=123) (%)	Adults '95 (n=123) (%)	Young Adults '95 (n=145) (%)
Respondent			
Self	1	2	3
Parent/foster parent	50	38	66
Other relative	1*	2	5
Friend/advocate	*	10	3
Other informed person	49	49	24
Length (in years)			
Range	1 - 33	1 - 41	1 - 27
Mean	13.50	14.14	17.34

* In 1985 the friend advocate and other relative were grouped together

behavior. The SIB-R is designed to assess skills needed to function independently in home, social, school, work, and community settings. As a result, it measures those facets of social development and adaptive and problem behavior that define, influence or limit an individual's adjustment in a variety of environments. The SIB-R provides a number of scores for interpretation purposes. The *Relative Mastery Index* (RMI) was selected as the score to be used in differentiating skill levels of participants. The RMI is an indicator of an individual's performance on a set of tasks relative to performance of others of the same chronological age. For example, an RMI score of 35/90 means that when others at the individual's chronological age complete tasks with 90% mastery, the individual would be expected to complete the task with 35% independence. In addition, 14 revised questions were asked to further identify the participants' social skills. These questions were drawn from those used by Johnson, McGrew, Bloomberg, Lin and Bruininks (1995).

Procedures

The postschool activities and the adaptive behavior measures were completed with all 268 participants. Interviews were conducted in the summer by current and retired district employees. Interviewers received a half-day training on the instrument and interview protocol.

Face-to-face interviews were conducted in sites of the participants' choosing, either the home, work or public setting. The interviews lasted 45 minutes to 1 hour. Participants and respondents each received $10 for their time.

Descriptive and multi-variate analyses were conducted on the data collected in the current study and the original data. The data used from the original study contained interview results of only those who participated as adults in the current study. Depending on the underlying measurement scale of each variable (interval, ordinal, nominal), group differences were examined with either independent sample t-test, one-way analysis of variance (ANOVA), or chi-square procedures.

The following section provides summaries of the major findings relevant to differences in postschool activities of the three groups of participants.

■ Results of Study

Analyses of the data revealed that in 1995 youth and adults with moderate and severe disabilities were engaged in different activities than were youth in 1985. Significant differences between the groups ($p < .01$) are presented here according to the specific activities of: (a) employment and daytime activities, (b) living arrangements, (c) personal and financial independence, (d) social and leisure involvement, and (e) preparation for postschool activities.

Employment and Daytime Activities

In 1995, the majority of adults were doing some type of work for pay (see Table 4). In fact, significantly more adults

Table 4: Employment and Daytime Activities of Participants

	Young Adults '85 (n=123) (%)	Adults '95 (n=123) (%)	Young Adults '95 (n=145) (%)
Employment			
Working for pay	64	97	88
Unemployed	32	2	9
In school or job training	4	1	3
Type of Work**			
Production*	41	34	30
Food/service	11	22	17
Janitorial	19	24	20
Manual*	15	18	12
Office/clerical	1	1	8
Job Placement**			
Competitive	16	18	27
Supported	n/a	20	21
Enclave	n/a	9	17
Sheltered	32	32	17
Day activity center	24	20	16
Other/Unable to classify	28	1	2

* Production includes piece work, manual includes all other packagers and sorters

** For type of work and job placement, only those who have paying jobs are included (Young Adults '85 n=79, Adults '95 n=119, Young Adults '95 n=128)

were working in 1995 than were working as young adults in 1985. There were, however, no significant changes in the types of jobs that the adults worked. Indeed, the majority of adults had three or fewer jobs since leaving high school. Unfortunately, changes in the types of placements were not identified as placement definitions used in the 1985 studies were different than those used in 1995. In 1995, however, a total of 47% of the adults worked in a community job in either a competitive, supported, or enclave placement. Eighty-five percent of those who had community jobs in 1985 still had them in 1995 and about half of those who had non-community jobs continued in the same job.

Although significantly fewer young adults were working in 1995 than adults, significantly more were working than their counterparts in 1985. Significantly more participants in the Young Adults '95 were employed in clerical or office positions than Adults '95. They were also significantly less likely to be employed in sheltered workshops than either adults in 1995 or young adults in 1985. There was, however, no significant difference between the percentage of young adults that entered activity centers in 1995 and 1985.

In fact, when the type of employment was examined by skill levels of the participants, very little change was found in the types of placement of those with very limited skills, as identified by the SIB-R (see Table 5). Although there was a significant increase of Adults '95 and Young Adults '95 with very limited skills who were placed in community jobs, the majority were placed in sheltered employment or activity centers (i.e., non-community jobs). Interestingly, there was no difference in the number of hours worked by Adults '95 with limited skills and Adults '95 with very limited skills.

Significantly more young adults and adults in 1995 found their current job using an adult agency than did young adults in 1985. Both groups of participants were also more likely in 1995 to receive a bonus or an increase in responsibility or pay than were young adults in 1985.

Living Arrangements

As can be seen in Table 6, the groups differed in terms of living arrangements. The majority of the Adults '95 resided in some type of supported living while the majority of

Table 5: Employment Information (According to Adaptive Behavior Skill Levels)

	Young Adults '85	Adults '95	Young Adults '95
Job Placement (%)			
Limited			
Competitive	41	40	30
Supported	-	26	25
Enclave	-	16	23
Sheltered	47	16	16
Activity center	6	2	6
Other	6	-	1
n	17	43	71
Very Limited			
Competitive	7	4	3
Supported	-	18	13
Enclave	-	5	16
Sheltered	27	41	26
Activity center	53	31	40
Other	13	1	3
n	45	74	38
Average Working Hours per Week			
Limited	21.6	22.0	24.0
n	18	43	71
Very Limited	18.9	21.8	16.1
n	43	72	37

Table 6: Living Arrangements of Participants

	Young Adults '85 (n=123) (%)	Adults '95 (n=123) (%)	Young Adults '95 (n=145) (%)
Place of Residence			
Private residence	43	37	71
Supported residence	55	60	28
Unable to identify	2	3	1
Type of Roommates			
Self	0	6	3
Parents	42	34	62
Friends	1	18	8
Others with disabilities	55	52	25

Young Adults '95 lived in a private residence with their family. In fact, significantly more of the Young Adults '95 lived with their parents than did the Adults '95 or Young Adults '85. Those who had been living with their parents in 1985, however, tended to still live with them in 1995 (75%).

Although only 10% of the Young Adults '95 indicated that they were on a waiting list for residential housing, 42% indicated that they would like to live somewhere else. Only 24% of the Adults '95 indicated that they would like to live elsewhere. Seventy percent of the Adults '95 planned to live in their current residence for five or more years. Only 40% of the Young Adults '95 planned to remain in their current residence for five or more years and 20% indicated that they wanted to change residences within at least three years.

In 1995, slightly more than half of the adults (52%) lived with other people with disabilities. This is significantly more than young adults in 1995 (25%), but not a significant change from the Young Adults '85 (55%). Some changes did occur, however, in terms of the number of roommates that lived with the Adults '95. The average number of roommates with whom adults lived in 1995 significantly decreased from 22 in 1985 to 11 in 1995. Although the majority of Young Adults '95 (52%) and Adults '95 (62%) wanted to live with the same number of roommates, 27% of the Young Adults '95 and 18% of the Adults '95 wanted to live with fewer people. Less than 13% of both groups wanted to live with more people.

Social and Leisure Involvement

Overall, the activity level of adults appears to have increased since they were young adults. Significantly more adults were involved in community activities in 1995 (50%) than they were as young adults in 1985 (1%). The mean number of their in-home activities, which included watching/listening to television, radio, music, working on hobbies, playing cards or board games, sitting around relaxing, artwork, talking with friends and/or cleaning and maintenance significantly increased from 2.8 in 1985 to 4.6 in 1995. There was also a slight increase in their out-of-home activities of shopping, participating in sports, attending events, visiting friends, attending religious events, going out to eat or taking a walk from 4.9 in 1985 to 5.2 in 1995. The only significant changes in the types of activities in which they engaged were that more adults in 1995 sat around relaxing or were involved in cleaning activities than they were as young adults in 1985.

Although young adults were more likely to be involved in community activities in 1995 (32%) than young adults in 1985 (1%), Young Adults in 1995 were significantly less likely to be involved in community activities than adults in 1995 (50%). Young adults in 1995 were also involved in significantly fewer in-and-out-of home activities than adults in 1995.

Young Adults '85 reported up to five close friends and Adults '95 and Young Adults '95 reported up to 10 friends. These friends were categorized into several types (see Table 7). As shown in Table 7, 37% of Young Adults '85 identified at least one of their family members as their close friend, while 79% of Adults '95 and 83% of Young Adults '95 did. The same pattern can be seen with co-workers and supervisors. Both Adults '95 (31%) and Young Adults '95 (32%) are significantly more likely to identify at least one of their co-workers and supervisors as close friends than Young Adults '85 (9%). Adult service staff are less likely to be identified as close friends for Adults '95 (28%) and Young Adults '95 (14%) than for Young Adults '85 (59%).

Table 7: Types of Friends Identified

	Young Adults '85* (n=70) (%)	Adults '95 (n=123) (%)	Young Adults '95 (n=145) (%)
Classification			
Family members	37	79	83
Friends	66	70	61
Human service staff	59	28	14
Co-worker/supervisor	9	31	32

* These data were only available from one distrct for participants in the Young Adults '85 group.

Half of both the adults and young adults in 1995 indicated that they wanted more friends and wanted more contact with the friends they had. Less than half of the adults (42%) and (39%) of the young adults met at least once a week in 1995 with friends without disabilities.

Personal and Financial Independence

Young Adults '95 received slightly less income per month than Adults '95 (see Table 8). The median amount of total income received by Adults '95 was $655 and Young Adults '95 was $540. Job wages accounted for a median of 27% (Adults '95) and 40% (Young Adults '95) of the total amount of income. The majority of the remaining amount was from Supplemental Security Income (SSI), Social Security Disability Insurance (SSDI), Minnesota Supplemental Assistance (MSA), and Aid to Families with Dependent Children (AFDC).

The total amount of income differed considerably within the two skill level groups. Those with higher adaptive behavior, as identified by the SIB-R, were more likely to receive a higher income. This difference was primarily due to differences in wages. The median amount of monthly wage received by Adults '95 and Young Adults '95 with limited skills was $250 more than the median amount received by those with very limited skills. Yet, there was only a small difference in the amount of SSI received. Adults '95 with limited skills worked the same number of hours as those Adults '95 with very limited skills. They were just more likely to work in community jobs (see Table 5). Young Adults '95 with limited skills worked more hours than those Young Adults '95 with very limited skills. They were, also, more likely to work in community jobs (see Table 5). Wages received in community jobs accounted for a larger percentage of monthly income (see Table 9).

Table 8: Median Income for Adults '95 and Young Adults '95 by Total Group and Skill Level

	Adults '95 (n)	Young Adults '95 (n)
Monthly Wages		
Total Group	$120.00 (109)	$160.00 (137)
Limited Skills	$316.00 (42)	$280.00 (75)
Very Limited Skills	$60.00 (65)	$10.00 (40)
Hourly Wages		
Total Group	$2.08 (107)	$2.36 (134)
Limited Skills	$4.48 (42)	$3.62 (74)
Very Limited Skills	$0.80 (63)	$0.16 (40)
Wages as Percentage of Total Income		
Total Group	27 (89)	40 (124)
Limited Skills	55 (32)	49 (69)
Very Limited Skills	12 (55)	5 (35)
Monthly SSI Income		
Total Group	$350.00 (53)	$329.35 (80)
Limited Skills	$384.50 (16)	$325.00 (45)
Very Limited Skills	$349.00 (35)	$390.50 (26)
Total Monthly Income		
Total Group	$655.00 (85)	$540.00 (123)
Limited Skills	$765.00 (32)	$572.42 (68)
Very Limited Skills	$522.00 (51)	$415.36 (35)

Table 9: Average Percentage of Wages Depending on Type of Job Placement

	Young Adults '85* % (n)	Adults '95 % (n)	Young Adults '95 % (n)
Community Job	65 (11)	57 (42)	61 (71)
Non-community Job	41 (40)	27 (42)	31 (36)

Note: Community jobs included competitive, supported, and enclave. Non-community jobs included sheltered and day activity center.

Although job wages accounted for less than half of the money received by both Adults '95 and Young Adults '95, 58% of the adults and 46% of the young adults in 1995 thought that their job provided enough money to buy the things they wanted or needed. There was no significant difference in the percentage of young adults and adults who identified receiving SSI and SSDI in 1995.

Although no comparisons were made between the amount of income received by Young Adults '85 and Adults '95, the number receiving SSI was compared. Thirty-six of those who received SSI in 1985 no longer received it in 1995. The employment and wage information for this group of 36 do not differ from the combined Adults '95 group.

Preparation for Postschool Activities

In 1995, significantly more young adults (68%) than adults (23%) reported job experiences in high school. The young adults were also significantly more satisfied with their high school preparation for further education, using public transportation, accessing various services, and applying for a job. Significantly more young adults reported attending IEP meetings (88%) and have received post-secondary training (14%) than did adults.

■ Discussion and Recommendations

The data presented in this study are similar to those identified in other postschool outcome studies. Overall, the findings indicate that individuals with moderate and severe disabilities have limited access to postsecondary education, are dependent on others for residence, and still have limited community involvement. Unlike other studies, however, the longitudinal nature of the current study has identified

increasing participation of individuals with moderate and severe disabilities in positive postschool activities.

It is evident that the employment experiences of individuals with moderate and severe disabilities have improved. Not only are more employed, more are employed in community settings and fewer young adults have entered sheltered workshops. In addition, wages now account for a larger portion of individuals' incomes. Unfortunately, individuals with moderate and severe disabilities seem to be limited to the jobs they first enter. Although there was a slight increase in clerical and office placements, the majority of jobs that young adults worked were no different than those 10 years ago. Once in the job, individuals tended to stay in that job and had to look internally for career development. More did receive a bonus or had increased responsibility, but many did not. In addition, the majority of participants made less than $500 per month.

Less clear is the progress that has been made related to independent living. More young adults with moderate and severe disabilities are living with their parents than ever before, and relatively few are on wait lists for supported living. Indeed, the longitudinal data suggest that the majority of young adults living at home in 1995 will still be living there in 2005. The only apparent positive change in the independent living status of individuals with moderate and severe disabilities was a reduction in the number of roommates of adults living in group homes in 1995.

The social involvement of individuals with moderate and severe disabilities has also improved but not to the extent that most would consider sufficient. More individuals are involved in the community and have increased the number of friends they have without disabilities. We had hoped, however, that more than half of the participants would have identified at least one friend without a disability. Instead, half of the participants indicated that they wanted more friends (with or without disabilities) and wanted to see their friends more frequently. Parents have long identified their child's social support and network as one of their primary concerns. It is clear that we have not done enough to address those concerns. Indeed, this might be said for most of the changes described in this brief.

The data clearly indicate that more students are attending their IEP meetings and are receiving preparation for employment, postschool training, and accessing the community and adult services. These changes are indications of wider systemic changes that have occurred as a result of policy and funding changes. It is not within the scope of this study to determine if increased participation of students and parents, or changed curriculum, or increased interagency collaboration, or increased staff, or any of the thousand changes that have occurred in the past 10 years was the most effective change for improving postschool status of individuals with moderate and severe disabilities. Indeed, the systemic change literature would suggest that it was the combination of changes, and most importantly the changes in the values and beliefs of the people involved, that were effective (Fullan, 1993; Johnson & Guy, in press). The findings do, however, provide guidance for improving the post-high school employment, living, and social experiences of individuals with moderate and severe disabilities.

Improving Employment Experiences

The improved employment status of young adults in 1995 and their higher satisfaction with high school preparation indicates that changes in high school practices and curriculum have made an impact on employment. Nevertheless, the number of young adults and adults in community jobs who receive at least minimum wage needs to be increased. The projected increase in the very type of service jobs that those participants in community jobs held should make it easier to find positions. Increased number of jobs, however, will not necessarily increase the placement rate of individuals with moderate and severe disabilities in community jobs. Existing resources for community job placements are already strained, necessitating the development of alternative methods to capitalize resources in order to increase the number of individuals with moderate and severe disabilities in community jobs. One way, of course, is to increase the use of natural support strategies. This will increase the availability of adult agency staff to work with more individuals. While natural support strategies have been successful for many individuals with disabilities, they have not, however, met the individualized needs of all individuals with disabilities. Development of alternative efficient methods for community placement of those with moderate and severe disabilities should continue to be explored.

Further examination of the structure and interrelationship of existing services and programs would also help to increase the community placement rate of individuals with moderate and severe disabilities. Those participants with the most significant disabilities, for example, continued to enter day activity programs. Increased program emphasis on community job placements would effectively utilize existing resources and increase the community placement rate.

Finally, individuals with moderate and severe disabilities, families, and professionals need to carefully consider the type of placement that is made. Although rehabilitation services are to be based on the preferences, interests, and choices of the individual youth and adults who will be receiving the services, decisions are frequently based on availability or because of crisis situations. The finding that many participants remained in their first placement reemphasizes that placement decisions must be based on individual preferences and needs. Placement based primarily on other factors may inhibit job satisfaction and success.

Unfortunately, systematic identification of the preferences of individuals with the most severe disabilities is an ambiguous process. The very characteristics of individuals with severe disabilities make the identification of prefer-

ences and interests a difficult task. Their generalization, abstract reasoning, and communication skills make traditional methods extremely difficult. For example, current preference inventories and vocational assessments are primarily language based. If an individual with severe disabilities has some method of formal communication, it is often limited and they have great difficulty generalizing across activities and environments, thus limiting the effectiveness of existing assessments. Future research needs to be done to develop procedures and strategies for the systematic identification of preferences of individuals with the most severe disabilities.

Improving Independent Living Status

Improving the independent living status of adults and young adults with disabilities is more complicated than improving their employment status. Agreement on desirable employment outcomes is easier to achieve than those of independent living; most would agree that working in the community for at least minimum wage is a desirable outcome. Choice of residence, however, represents a variety of values and beliefs that result in many desirable options. The reduction in number of roommates in group homes, however, certainly represents one change that most would agree is positive. Assigning a value to the increased number of young adults living at home in 1995, however, is less clear, and less important than determining the impact of this finding on services and practices.

If individuals with moderate and severe disabilities are to continue living at home, we need to find ways to provide services to support that decision. Hayden, Spicer, DePaepe, and Chelberg (1992) provided a thorough discussion of the adjustment of service delivery to meet the needs of those remaining at home and implications of those changes on the entire system. It is clear, however, that changes also need to be made in the preparation for independent living that individuals and families receive in high school. Traditionally, education programs have focused on teaching individuals the "skills" they will need to live independently. Although frequently taught in natural settings, these skills are often taught separately and without linkage to the actual experience. Research has shown, however, that actual job experiences in high school impact postschool employment. Why should deciding where to live be any different? More information is needed to identify those practices that schools and educators can provide to assist individuals with moderate and severe disabilities and their families in the choice of residence and other independent living outcomes.

Improving Social Involvement

More attention needs to be paid to improving the social involvement of adults and young adults with disabilities. It is clear from the data that while changes in the types of friends have occurred, working or living in the community does not mean that people will have the number of friends or interact with them to the extent they would like. Methods and strategies that help individuals increase their social involvement need to be developed. These strategies need to include ways to increase the independence of individuals with moderate disabilities in initiating and maintaining their social involvement.

■ Conclusion

This study has presented data that suggest that the reform efforts of the past decade have begun to influence the types of postschool experiences of individuals with moderate and severe disabilities. The changes that have been made, however, have not always occurred for the majority of the participants. In some cases, the changes themselves have resulted in the need for more change.

The data provided by studies such as this can only serve as an indication of the activities in which young adults and adults with disabilities are engaged after leaving high school. Determination of the "success" of adults with disabilities and the programs that serve them can only be identified by the satisfaction levels of individuals and the social values of parents, educators, adult service providers, and policymakers. Parents, educators, adult service providers, and researchers must use this information to guide their own work. They must also use this information to inform policymakers and communities of the successes and needs of individuals with moderate and severe disabilities.

Findings such as the ones presented here are essential as the emphasis on federal and state reform continues. The emphasis, for example, of the IDEA Amendments of 1997 on access of children with disabilities to the general education curriculum and their participation in large scale assessments will effect the educational programs of youth with disabilities. Curriculum will be changed by such influences as the performance criteria that are required for graduation, the manner in which those criteria are determined, and the repercussions for schools, districts, and states if those criteria are not met. Findings such as the ones in this study will ensure that developing policies and practices result in curricula that include the work, independent living, and social opportunities that youth with moderate and severe disabilities need to achieve their desired postschool activities.

The continued improvement of policies, procedures, and practices for individuals with moderate and severe disabilities cannot occur without solid information regarding the postschool experiences of individuals with moderate and severe disabilities. The information cannot make a difference unless it is used by the people developing and implementing policies, procedures, and practices.

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